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April 24, 1997

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Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

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APR 24 1997

Federal Communications Commission
Office of Secretary

Re: *In the Matters of Federal-State Joint Board on Universal Service;
Implementation of the Local Competition Provisions of the
Telecommunications Act of 1996; and Access Charge Reform, CC
Docket Nos. 96-45/96-98; and 96-262*

Dear Mr. Caton:

Pursuant to a request of the staff of the Common Carrier Bureau's Competitive Pricing Division, attached please find a copy of study entitled "The Cost of Ignoring History" written by William Steinmeier, former chairman of the Missouri Public Service Commission and former president of NARUC, James Fischer, former commissioner of the Missouri PSC, and Albert Halprin, former chief of the FCC's Common Carrier Bureau. The paper shows how the Federal Energy Regulatory Commission ("FERC") recognized the importance and legitimacy of recovering stranded costs during a transition to a wholesale market. The paper draws parallels between the cost recovery issues FERC had to deal with and those the federal and state regulators are now facing with the deregulation of local telephone service.

The paper encourages the FCC and the States to apply the lessons of regulatory history, by developing telecommunications cost recovery policies based upon the same types of insights gained by the FERC and state regulators in guiding the gas and electric industries toward competition.

Please associate this letter and the attachment with the above-referenced rule making dockets. In accordance with Commission procedure, an original and one copy (for each docketed proceeding) is provided for your use.

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Mr. William F. Caton
April 24, 1997
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Please contact me should you have any questions concerning the foregoing.

Very truly yours,

Todd F. Gilman

Attachment

cc: Mr. Boasberg
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Mr. Gonzalez
Mr. Kennard
Mr. Wright
Mr. Farrell
Mr. Rosston
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Ms. Keeney
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THE COST OF IGNORING HISTORY

Telecommunications Cost Recovery After the 1996 Act And The Need for Responsible Action

by

William D. Steinmeier, James M. Fischer, and Albert Halprin
February 1997

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THE COST OF IGNORING HISTORY

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by

William D. Steinmeier, James M. Fischer, and Albert Halprin

I. INTRODUCTION

State regulators and the Federal Communications Commission ("FCC") should develop cost recovery mechanisms that enable incumbent local exchange carriers ("LECs") to recover their actual network costs during the telecommunications industry's transition to competition. This transition, spurred by the Telecommunications Act of 1996,^{1/} is analogous to transitions that have already occurred or are now occurring in two other regulated fields -- the natural gas and electric utility industries.

The FCC's pricing methodology, known as "Total Element Long Run Incremental Cost" ("TELRIC"), is designed to recover only certain forward-looking incremental costs associated with the LECs' interconnection arrangements and network elements offered pursuant to the Telecommunications Act. TELRIC is not designed to recover the actual costs of providing and operating these services.

However, as this paper shows, another federal agency, the Federal Energy Regulatory Commission ("FERC"), is taking a very different -- and far superior -- approach when faced with the same types of cost recovery issues in the natural gas and electric industries. The FCC, though, has made no effort to consider, much less learn from, the FERC's experience.

^{1/} Pub. L. No. 104-104, 110 Stat. 56 (1996) (the "Telecommunications Act" or the "1996 Act"), to be codified at 47 USC §§ 151 et seq.

The FCC has not yet squarely faced the general cost recovery issue in telecommunications, although it has mentioned the cost recovery issue in several pending proceedings, involving interconnection, universal service, and access charge reform. Its treatment thus far of cost recovery issues in these proceedings resembles a giant "shell game," in which the prospect of adequate cost recovery is hidden from LECs and the public under the shell of new administrative proceedings and never is addressed but always deferred to a future proceeding. If not addressed, states risk becoming "fall guys" for having to determine how to recover these actual costs. If the TELRIC methodology is generally utilized and actual costs are not recovered in some manner, TELRIC likely will be unconstitutionally confiscatory.

In contrast, the FERC and state regulators have developed a variety of means of recovering the actual costs incurred by natural gas and electricity providers as those industries have moved toward competition. For example, in the last 15 years, the FERC has developed reasonable means of recovering "transition" or "stranded" costs incurred by natural gas and electric providers formerly under extensive regulation as those industries have moved toward competition. After first addressing cost recovery issues in the natural gas industry, the FERC devoted considerable attention to these issues in the current transition to a competitive wholesale electric generation marketplace in the United States, pursuant to the federal Energy Policy Act of 1992. The FERC has expressly recognized the legitimacy of the right of utility investors to recover actual costs "stranded" in the transition to competition, as well as the necessity, as a matter of policy, to provide for such recovery in order to achieve a fully competitive marketplace.

Of course, regulatory environments and the development of competition differ among the telecommunications, natural gas, and electricity industries, as well as between the federal and state jurisdictions in each of those industries. Most notably, the costs at issue in the telecommunications arena are only in danger of being "stranded" and unrecovered because the FCC's TELRIC methodology does not permit their recovery from users, even though the facilities associated with those costs remain both used by, and useful to, competitors of the incumbent LECs. Because of such differences, we do not suggest that state regulators or the FCC should replicate all aspects of the FERC's regulatory decisions addressing the complex factual situations of the natural gas and electric industries.

Nonetheless, based on the experiences of the FERC and the states with regulation and competition in the natural gas and electric industries, it is imperative that state regulators, as well as the FCC, learn from and build on this history in managing the transition to competitive telecommunications markets. The fundamental insight is that actual costs cannot and should not be ignored by regulators, and imposed on industry stockholders, when those regulators implement fundamental competitive changes to the industry's structure -- even when such costs are associated with plant abandoned or underutilized because of such regulatory decisions.

Accordingly, state regulators, many of whom have extensive experience with these issues in the gas and electric industries, should take action by declining to use TELRIC pricing as telecommunications competition develops. At the same time, the FCC should end its procedural "shell game" and revise or abandon its TELRIC methodology so that LECs can recover their actual costs from users in an efficient and fair manner. With the entry of the stay of the Interconnection Order by the Eighth Circuit Court of Appeals, states are now

able to revise or abandon the TELRIC approach in setting prices for local interconnection and for unbundled elements. They should do so. Because the cost recovery issue affects all aspects of telecommunications, it cannot be solved, even nominally, in any one of the above-mentioned pending proceedings or indeed exclusively at either the state or federal level.

The states and the FCC should permit LECs to recover the actual costs of their unbundled network elements and interconnection offerings from their users, which are the causers of those costs. By requiring recovery of actual costs from "cost causers," specifically the users of unbundled network elements, interconnection arrangements, and access services, the states and the FCC can avoid unfair and inefficient cost recovery from residential and small business users. At the same time, the states and the FCC should provide increased flexibility to align other prices more closely with costs. Doing so will enable the LECs to recover those costs in an efficient manner. Moreover, the states and the FCC should permit incumbent LECs to use market-driven depreciation rates, at the wholesale and retail levels, to permit more rapid recovery of embedded costs.

By crafting telecommunications cost recovery policies based on the same types of insights gained by the FERC and state regulators in guiding the gas and electric industries toward competition, the states and the FCC will apply the lessons of regulatory history, rather than ignore them.

II. BACKGROUND

The FCC and state regulatory commissions face a myriad of challenges in implementing the Telecommunications Act. As competition increases throughout the telecommunications sector, state and federal regulators will play a pivotal role in managing

the last stage of the transition from a monopoly-based to a market-based industry. A regulatory structure allowing incumbent LECs a fair opportunity to recover the legitimate and actual costs they incurred under prior regulatory regimes and continue to incur will be critical to ensuring that all customers -- even those who are unattractive to new entrants -- promptly receive the benefits of competition as intended by the Telecommunications Act.

The FCC has considered cost recovery mechanisms in three proceedings related to the 1996 Act, regarding interconnection,^{2/} universal service,^{3/} and access charge reform,^{4/} but to date has adopted regulations only in its Interconnection Order. The FCC's establishment of a TELRIC pricing standard in that order poses a serious threat of harm to consumers and investors alike. TELRIC pricing as conceived by the FCC, and some types of incremental cost pricing adopted by the states, are forms of forward-looking incremental cost pricing that do not permit a reasonable opportunity for incumbent LECs to recover their actual costs. LECs prudently incurred and are still incurring these actual costs under comprehensive federal and state regulation for facilities that are still useful.^{5/} These costs

^{2/} See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, First Report and Order, CC Docket Nos. 96-98, 95-185, FCC 96-325 (rel. Aug. 8, 1996) (the "Interconnection Order"), recon. pending, partial stay entered sub nom., Iowa Utilities Board v. FCC, 1996 WL 589204 (8th Cir., Oct. 15, 1996).

^{3/} See Federal-State Joint Board on Universal Service, Recommended Decision, CC Docket No. 96-45, FCC 96J-3 (rel. Nov. 19, 1996).

^{4/} See Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing, Usage of the Public Switched Network by Information Service and Internet Access Providers, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, CC Docket Nos. 96-262, 94-1, 91-213, 96-263 (rel. Dec. 24, 1996) ("Access Reform Notice").

^{5/} "Embedded" costs are associated with used and useful facilities. As such, they differ from costs associated with so-called "stranded investment," which are facilities that no longer can be put to use. Under the TELRIC standard, the FCC also did not permit recovery of
(continued...)

also include the actual operating expenses necessary to run the ubiquitous LEC networks in the efficient fashion that regulators and consumers have come to expect.

In adopting TELRIC, the FCC declined to adopt a reasonable interpretation of the Telecommunications Act's term "cost" as meaning actual cost (i.e., the costs actually incurred in the past and on a going-forward basis to build and maintain the network). While, as a matter of economic theory, a recognition of actual forward-looking costs is important for the development of competition, TELRIC pricing as envisioned by the FCC does not reflect the actual costs of incumbent LECs. The Interconnection Order's version of incremental costing would permit the recovery of only certain forward-looking incremental costs, plus a portion of the forward-looking joint and common costs, of providing unbundled network elements and interconnection.^{6/} Prices are to be based on hypothetical costs that assume deployment by the incumbent LEC of the "most efficient technology for reasonably foreseeable capacity requirements."^{7/} Some parties have interpreted this to estimate the costs of a hypothetical minimal network operating at lower than current costs, based on hypothetical cost-saving measures. Such interpretations represent significant and dangerous departures from past regulatory practice, and the FCC should not adopt them.

^{5/}(...continued)

universal service subsidies or some aspects of profit. See Interconnection Order at paras. 712-715 (universal service subsidies); 699-703 (profit).

^{6/} Id. at paras. 690-698.

^{7/} Id. at para. 685.

While the TELRIC standard as adopted in the FCC's Interconnection Order has been stayed by the U.S. Court of Appeals for the Eighth Circuit,^{8/} it continues to influence the proposals for changes to the current system of universal service funding in the Federal-State Joint Board's Recommended Decision on Universal Service and the FCC's Access Reform Notice, as well as the arbitration proceedings conducted in the states under FCC rules. The Interconnection Order clearly demonstrates that the FCC sought to stimulate the entry of local exchange competitors by limiting incumbent LECs' opportunities to recover costs legitimately incurred in installing, and necessary in operating, the very facilities and services that will be used by those competitors, hence providing a subsidy to those competitors. This is especially troublesome on a going-forward basis. The TELRIC pricing standard seems to have residual influence as state commissions turn to fulfilling an important part of their mission under the Telecommunications Act: the adoption of pricing standards for interconnection and network elements.^{9/} TELRIC is inappropriate as a standard for the states to use, since it does not reflect actual costs.

To avoid unconstitutional confiscation, actual costs must be recovered in some reasonable manner. Without reform of the TELRIC rules, regulators will be subject to strong pressures to recover costs by raising prices for the services used by those consumers who have few alternatives to the incumbent LECs, especially residential customers and small businesses. This clearly is harmful to these customers and is unsustainable. Without the

^{8/} See Iowa Utilities Board v. FCC, 1996 WL 589204 (8th Cir., Oct. 15, 1996). The Eighth Circuit based the stay on the FCC's apparent lack of jurisdiction to impose such requirements. The Eighth Circuit narrowed a small portion of its stay on November 1, 1996, reinstating requirements governing how LECs and wireless carriers are compensated for transporting and terminating each others' traffic.

^{9/} See Telecommunications Act § 252(d), 47 U.S.C. § 252(d).

ability to recover past, current, and on-going costs of activities such as operating and maintaining their networks, handling service orders, and installing new technologies, incumbent LECs may be forced to scale back on these fundamental responsibilities. This would adversely affect the LECs' networks and their traditionally high service quality levels. Such results would also violate the intent of the Telecommunications Act by failing to bring the benefits of increased competition to all citizens.

In addressing similar cost recovery issues in the gas and electric industries, state regulators and the FERC have acted in creative and responsible ways that promote competition while permitting embedded cost recovery, thereby avoiding violation of the constitutional prohibition on confiscation. The cost of ignoring this history could be higher rates for remaining LEC customers, inefficient competition, decreased LEC access to capital markets, reduced LEC network reliability, and delayed development and delivery of advanced services, as well as years of unsettling litigation. It would be irrational for regulatory agencies to address similar issues in diametrically opposite ways. States and the FCC should look to the positive experiences of the gas and electric industries, rather than the Interconnection Order's TELRIC approach, to implement cost recovery policies under the Telecommunications Act.

III. POTENTIAL FOR STRANDED COSTS IN THE TELECOMMUNICATIONS INDUSTRY

A. Costs at Issue

For purposes of this paper, the "actual costs" of the local exchange industry are those incurred pursuant to the LECs' obligation to serve, subject to regulatory oversight.

As such, they are presently necessary for operation of the telephone network. Such costs are currently allowed in rates for intrastate exchange and intrastate and interstate access services. Their recovery may be jeopardized by the transition from traditional regulation in a protected franchised retail service area, to a competitive marketplace and a different form of price regulation based on the use of forward-looking long-run incremental costs, such as TELRIC.

Cost recovery will be a problem if forward-looking costs are not sufficient to cover actual costs, including historic embedded costs. In a competitive market, customers for whose benefit costs were incurred under traditional regulation may leave the incumbent LECs to take service from alternative providers, benefitting the owners of those competitors. In that competitive market, prices will not necessarily be based on historic, embedded costs, as they are under traditional "cost of service" regulation. Prices based on forward-looking long-run incremental costs of a new telecommunications network will not, in many cases, recover the actual costs of the local exchange company's telephone network. Incumbent LECs, which constructed telecommunications networks to serve all customers in a franchised area, enter these new competitive markets with the possibility of so-called "stranded costs" -- substantial embedded costs which they may not recover in their rates, if forward-looking long-run incremental costs are used to establish prices without explicit recognition of the actual costs. As used in this paper, the term "stranded costs" does not necessarily mean that the incumbent LEC's facilities associated with that cost are no longer used and useful. Rather, stranded costs are those costs that cannot be recovered by LECs because of the pricing methodology employed by regulators. In other words, the facilities are not stranded but the costs are. Of course, in some circumstances there may be an additional problem of stranded facilities.

Potential stranded costs in the telecommunications industry include not only the embedded costs of the network itself, but also other costs included in rates under traditional regulation which were designed and approved by regulators to promote specific policy goals such as universal service. One category, "Investment," includes costs incurred primarily in the telephone network facilities themselves, including switching and transmission facilities, operations support systems, billing systems, and maintenance systems. These costs were prudently incurred by incumbent LECs to keep their commitment to provide reliable service to all customers at just and reasonable prices, and are necessary to keep the LECs' networks running efficiently. Another cost category, "Operating Expenses," includes the administrative expenses, such as human resources, needed to keep the LECs' networks running.

Another category, "Social Costs," is a product of non-economic rate structures established to meet a variety of social goals, which incumbent LECs have implemented under government-mandated directives or with regulatory approval. Such programs include subsidized rates for low income customers; Link-Up programs and Life-Line rates; discounts to libraries, educational institutions, and health care providers; and subsidized rates for telecommunications services to disabled Americans.

An additional category, "Universal Service Subsidies," includes a wide variety of policies approved by state regulators and the FCC designed to promote universal service by maintaining basic local exchange service at reasonable rates. In order to promote universal service, state regulators and the FCC used existing cost allocations and separations rules to assign costs to access services, vertical services, and interexchange service. With the introduction of full competition into the local exchange market, such subsidies cannot be

maintained. Because this rate structure has been encouraged and approved by state regulators and the FCC, however, it is appropriate that LECs be permitted an opportunity to recover these costs.

B. Conditions Creating The Risk Of Stranding Costs

A major thrust of the 1996 Act is to promote the rational pricing of telecommunications services on the basis of the costs incurred in providing them.^{10/} The FCC, in the Interconnection Order, advocated basing LEC interconnection rates on forward-looking long-run incremental costs. Similarly, the Federal-State Joint Board recently recommended that the Universal Service Fund payments be made based on a comparison of the forward-looking long-run incremental costs of a national cost benchmark. Although the FCC recognized the need to address "transition issues" in its Access Reform Notice,^{11/} it also continued to rely on forward-looking long-run incremental costs as its basic costing methodology. As a result, the FCC may require the incumbent LECs to provide access services at rates that reflect only the incremental costs of providing access, unless an explicit mechanism is developed to recover the difference between the actual accounting costs and forward-looking long-run incremental costs.

Access charges based solely on incremental costs may be considerably lower than current access charges, which have been developed to both recover the actual authorized accounting costs of providing access to the telecommunications network to all subscribers, and to sustain universal service subsidies. The difference between the incremental costs of

^{10/} See, e.g., 47 U.S.C. § 252(d).

^{11/} See Access Reform Notice at paras. 241-270.

providing these services and the rates currently charged by LECs could become stranded if appropriate pricing policies are not adopted by the FCC and the states in the near future.

From our perspective, these are the types of transition issues faced by the FERC and state regulators in the natural gas and electric industries. We are well aware of the factual differences among conditions in these industries, and we do not claim that state regulators or the FCC should transcribe the FERC's orders to apply literally to the telecommunications environment. Indeed, because the potential stranded costs in telecommunications relate directly to the FCC's adoption of TELRIC pricing, the case for full recovery of actual costs in telecommunications is, if possible, even more compelling. We believe that it is essential for state regulators and the FCC to ensure that incumbent LEC have the opportunity to recover their actual costs as the industry moves to full competition. The experience of the FERC and the states in the natural gas and electricity contexts is an acknowledgment that the recovery of such costs must be addressed comprehensively, rather than through a narrow focus on forward-looking incremental costs.

The incumbent LECs have incurred the costs at issue under the system of traditional system of regulation in place for most of the twentieth century in the United States. This system, based on established legal and economic principles, defined a series of rights and responsibilities of public utilities^{12/} that constitute a regulatory compact or contract.^{13/} LECs' responsibilities under this compact include the "obligation to serve,"

^{12/} See Charles F. Phillips, Jr., The Regulation of Public Utilities, Third Edition (Arlington, VA, PUR, 1993), at 118-120.

^{13/} Gregory Sidak and Daniel Spulber have comprehensively discussed this compact, which they call the "Regulatory Contract," and the economic and legal case for full cost recovery. See Affidavit of J. Gregory Sidak and Daniel F. Spulber, Attachment 15 to

(continued...)

under which the LEC must provide service to every requesting customer in its service territory.^{14/} Traditional regulation also has imposed limitations on LEC prices and profits, and required LECs to serve all customers in the same class on equal terms.

A principal right of incumbent LECs under traditional regulation has been a limitation on direct competition for the LEC's regulated services within its defined or certificated service territory. This right has long been understood to counter-balance the LEC's "obligation to serve" within that service territory. Now, with the enactment of the Telecommunications Act, the prospect of expansive direct local competition is a reality. As a result, the incumbent LEC no longer serves an exclusive service territory, placing at risk the opportunity to recover embedded investments incurred by the LEC in order to meet its "obligation to serve."

Traditional regulation, at the state level as well as before the FCC, assured the LEC's right to a reasonable opportunity to recover its prudent and reasonable costs, and to earn a fair return on its investment in physical plant, necessary to meet the "obligation to serve."^{15/} Under traditional rate-of-return regulation, the states and the FCC determined

^{13/}(...continued)

Comments of the United States Telephone Association to the Federal Communications Commission, CC Docket No. 96-262 (filed Jan. 29, 1997) ("Sidak-Spulber Affidavit") at 33-62. See also George L. Priest, The Origins of Utility Regulation and the "Theories of Regulation" Debate, 36 J.L. & Econ. 289 (1992).

^{14/} An element of the obligation to serve in the telecommunications industry is the responsibility of "readiness to serve," under which an incumbent LEC is expected to plan, build, and maintain its system in a way that allows the LEC to be ready to meet customer demands on short notice. Under recent competitive developments, the obligation to serve now has the added dimension of requiring LECs to provide the facilities needed for the LEC's competitors to access their customers.

^{15/} Moreover, regulators have established depreciation rates for LEC assets, often intentionally prescribing long lives for assets in order to keep annual depreciation expense (and thus current rates) lower and pushing capital recovery further into the future.

the appropriate rate of return for LECs and set rates designed to allow LECs to achieve the authorized return. Certain risks have always accompanied the opportunity to actually recover the authorized rate of return.^{16/} These risks were considered in setting the authorized return, and investors understood they were taking, and being compensated for, such risks.

As price cap regulation and other forms of incentive regulation have been adopted at both the state and federal levels, an underlying assumption has continued to be that regulator-established pricing policies would not preclude recovery of actual costs. Indeed, at the federal level, price cap rates initially were set based on the FCC's 1990 rate-of-return evaluation. Going forward, rates of return were no longer directly regulated, but LECs were subject to "caps" on their prices,^{17/} and, at the federal level, "sharing" mechanisms and reviews of LEC performance under price caps retained a regulatory link to the prior system of rate of return regulation.

With respect to interconnection arrangements and unbundled network elements, an important set of incumbent LEC services, the implementation of TELRIC is directly contrary to price cap regulation as currently implemented. Price cap regulation presents incentives for LECs to increase efficiency by reducing their actual costs, but it preserves at least some flexibility for LECs to recover their costs fully through rates, subject to the caps. With the adoption of TELRIC, the FCC has redefined the types of costs that can be

^{16/} Under traditional regulation, these risks include the effects of inflation, the possibility that economic downturn in the service area would cause lower revenues than expected when the rates were set, and the availability of comparable services from other suppliers.

^{17/} These caps themselves can be lowered only pursuant to the price cap formula.

recovered, placing further economic pressure on the LECs and their investors. As such, TELRIC essentially constitutes a back-door rate case that attempts to avoid issues of cost recovery by only focusing on a subset of rates. Indeed, in light of the substantial changes in operations and investment that price cap LECs have undertaken to increase efficiency and maintain high quality service under a price cap regime, the imposition of TELRIC violates the underlying incentive structure implicit in price cap regulation.

IV. FERC TREATMENT OF RECOVERY OF EMBEDDED COSTS STRANDED BY GOVERNMENT ACTION AFFECTING THE NATURAL GAS AND ELECTRIC INDUSTRIES

In contrast to the FCC's TELRIC approach, the FERC and state regulators have permitted the recovery of actual costs, including embedded costs, in the natural gas and electricity industries.

A. The Natural Gas Industry

1. Transition To Competition In The Natural Gas Pipeline Industry

In 1938, Congress enacted the Natural Gas Act ("NGA") to regulate the sale for resale in interstate commerce of natural gas.^{18/} Congress' actions stemmed from a Supreme Court ruling barring the state regulation of sales of natural gas at wholesale^{19/} and

^{18/} 15 U.S.C. 717-717w (1938).

^{19/} See People's Natural Gas Co. v. Public Service Commission of Pennsylvania, 270 U.S. 550 (1926).

from a 1935 report of the Federal Trade Commission which referred to the "unregulated control of pipeline transmission and of wholesale distribution" as a "positive evil."^{20/}

Congress enacted the NGA because it "considered that the natural gas industry was relatively concentrated and that monopolistic forces were distorting the market price for natural gas."^{21/} Under the NGA, Congress regulated the interstate chain of distribution of natural gas from the wellhead to the market under a traditional public utility model. The heart of the NGA regulatory system was the fixing of "just and reasonable rates" for natural gas companies (both producers and pipelines) engaging in the sale for resale and interstate commerce of natural gas. The structure of the natural gas industry regulated by the NGA was simple. The producers would sell their natural gas in the production area to the interstate pipelines at the rates determined by the Federal Power Commission ("FPC") (later called the Federal Energy Regulatory Commission or "FERC") to be "just and reasonable." The pipelines would transport their purchased gas and their own production to the city gate for sale to local distribution companies ("LDCs") at FPC-determined just and reasonable rates that recovered both the pipeline's cost of gas and cost of transmission. The primary features of the NGA-regulated natural gas industry were FPC-determined just and reasonable prices and interstate pipeline sales of gas for resale to LDCs at the city gate at those prices and transactions that combined or bundled into one package the pipeline's gas supply and transmission costs.

^{20/} See Final Report of the Federal Trade Commission to the Senate of the United States pursuant to S.Res. 83, 70th Cong., per session (1935).

^{21/} FPC v. Texaco, Inc., 417 U.S. 380, 397-398 (1974).

Interstate natural gas shortages during the 1970s were the catalyst for reform of the regulation of the natural gas industry. Simply put, the FPC's regulation under the NGA did not prove adequate to the task of ensuring an adequate supply of interstate gas. As a result, Congress responded to the natural gas shortages by enacting the Natural Gas Policy Act of 1978 ("NGPA")^{22/} to increase the flow of gas into the interstate market.

Under the NGPA, the process of decontrolling wellhead prices of natural gas began. Congress also took action to promote gas transportation by interstate and intrastate pipelines by authorizing the FERC to approve certain transportation arrangements outside the NGA's certification requirements. The NGPA permitted the FERC to approve the transportation of gas by interstate pipelines on behalf of any intrastate pipeline and any LDC. The NGPA's primary aim was to permit a competitive wellhead market where market forces play a "more significant role in determining the supply, the demand, and the price of natural gas."^{23/}

The NGPA radically changed the key aspect of the natural gas industry by eliminating FERC-determined prices for wellhead and first sales of natural gas. In so doing, the NGPA was designed to create a workably competitive market for the production of natural gas.

In 1985, the FERC adopted Order No. 436 in response to the NGPA's aim to permit a more competitive wellhead market and to the economic changes in the natural gas industry. Order No. 436 instituted open-access, nondiscriminatory transportation to permit

^{22/} Codified as amended at 15 U.S.C. §§ 3301-3432 (1994).

^{23/} Transcontinental Gas Pipeline Corp. v. State Oil and Gas Board of Mississippi, 474 U.S. 409, 422 (1986).

downstream gas users, such as LDCs and industrial customers, to buy gas directly from gas merchants in the production area and to ship that gas via the interstate pipelines. As a result of the adoption of Order No. 436, the interstate pipeline system was largely transformed from a system in which most natural gas was sold on a "merchant" basis to a system where approximately 79% of total annual interstate pipeline throughput was transportation. This reversed the historical function of pipelines, which prior to Order No. 436 had primarily acted as gas merchants.

To summarize, the NGPA and Order No. 436 fundamentally changed two key components of the natural gas industry. First, the price of natural gas as a commodity was no longer subject to FERC-determined rates. Second, the transportation and sale of natural gas became distinct economic and commercial services. Pipelines and other gas merchants became direct competitors in the sale of gas to LDCs and to end users, such as industrial customers and gas-fired electric generators.

In 1989, Congress adopted the Decontrol Act.^{24/} This legislation amended the NGPA to repeal all remaining price controls on wellhead gas in order to obtain additional production of natural gas at lower prices by creating competition among the various producers. In effect, from the passage of the NGPA in 1938 to the passage of the Decontrol Act in 1989, the natural gas industry was transformed from a "traditional" structure where pipelines purchased gas from producers at regulated prices and transported that gas to consuming markets where it was resold to LDCs at regulated prices and other end users, to a structure where LDCs and industrial end users increasingly utilized pipelines only to

^{24/} Pub. L. No. 101-60, 103 Stat. 157 (1989).

transport (at FERC-regulated prices) the gas they purchased at decontrolled prices directly from producers and marketers.

In 1992, the FERC adopted Order No. 636, which "finally complete[d] the evolution to competition in the natural gas industry."^{25/} Under Order No. 636, the FERC required pipelines to unbundle (i.e., separate) their sales service from their transportation services at an upstream point near the production area and to provide all transportation services on an equal basis for all transporters of natural gas. The pipelines were also required to provide a variety of transportation services to their shippers, including unbundled storage services and interruptible transportation services.^{26/}

In order to accomplish this fundamental transformation of the traditionally regulated natural gas pipeline industry to a market-driven natural gas industry, the FERC was faced with certain transition costs which needed to be dealt with in some manner fair to consumers and the shareholder owners of natural gas pipelines. The treatment of these costs is summarized in the next sections of this paper.

^{25/} Final Order No. 636 (Apr. 8, 1992) at 2. (Order No. 636 contains a more extensive summary of the FERC's efforts to transform the natural gas industry to a competitive industry, and is a primary source for this discussion).

^{26/} The FERC's requirement for natural gas pipelines to unbundle their sales services into separate, distinct elements is directly analogous to the requirement in the Telecommunications Act that LECs unbundle local exchange services into separate, unbundled elements. In the natural gas pipeline industry, competitors were permitted to purchase tariffed, unbundled elements (e.g., transportation and storage) from the pipelines and combine these unbundled elements with natural gas purchased from unregulated sources to provide complete natural gas services to retail customers. Similarly, in the telecommunications industry, competitors may purchase tariffed, unbundled elements (e.g., transport and switching) from LECs and combine these unbundled elements with services provided by the competitors themselves or other unregulated sources to provide complete telecommunications services to retail customers. In both industries, the unbundling of the regulated services were designed to promote competition.

2. FERC Treatment Of Transition And Stranded Costs In The Natural Gas Industry

In the natural gas pipeline industry, regulated suppliers have been afforded the opportunity to recover costs associated with the transition from regulation to market competition. The FERC, at the behest of the federal courts, provided mechanisms for the recovery of certain costs related to "embedded" contracts and other transition costs. As many pipeline customers exercised their rights under Order No. 436 to buy less gas from pipelines and to transport less expensive natural gas purchased from competitive suppliers, pipelines were left with massive obligations to purchase high-priced gas at the wellhead under "take-or-pay" contracts negotiated in the 1970s, when gas shortages were common.

The origin of these "take-or-pay" liabilities was summarized in Associated Gas Distributors v. FERC as follows:

[T]he conditions under which the NGPA began to relax wellhead price controls--namely acute gas shortage and sharply rising prices for alternative fuels--tended to divert pipeline attention from the hazards of incurring long-term obligations to buy high-priced gas. Under pressure from the Commission, the pipelines had typically purchased gas under contracts for very long terms. Besides incorporating high prices (and provisions for escalation upward), the contracts commonly included "take-or-pay" provisions, requiring the pipeline to pay for some specified percentage, say 75%, of the deliverable gas even if it took less. While usually subject to recoupment later, and while a perfectly natural allocation of risk between producer and purchaser, the take-or-pay provisions effectively committed the pipelines to high gas costs in what by 1982 proved to be a time of falling prices, both for competing fuels and for substitute supplies of gas not covered by contract.^{27/}

^{27/} 824 F.2d 981, 995-96 (D.C. Cir 1987) (citations omitted).